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Source: *Annals of the Bhandarkar Oriental Research Institute*, 1951, Vol. 32, No. 1/4 (1951), pp. 146-165

Published by: Bhandarkar Oriental Research Institute

Stable URL: <https://www.jstor.org/stable/41784587>

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HISTORY OF WAX-CANDLES IN INDIA

(A. D. 1500-1900)

BY

P. K. GODE

The history of the Indian technical arts and sciences is shrouded in mystery, though it would be possible to clarify it considerably on the strength of Sanskrit and non-Sanskrit sources. During the last ten years I have published several papers¹ dealing with a few problems connected with the cultural history of India which includes the history of Indian technical arts and sciences.

The history of Lighting and Lighting Appliances in Ancient and Mediaeval India, if studied in detail, would prove a fascinating study for any lover of Indian culture. I have collected some material on this topic but it would take a long time to release it, in the meanwhile I have thought it advisable to write some notes on stray topics connected with this subject. Accordingly I have published a paper² on the references to Persian oil (*pārasika taila* or *Turuṣka taila*) in Sanskrit sources (between c. A. D. 500 and 1100). According to the evidence recorded in this paper it appears that some sort of crude Persian oil or Kerosine oil was used as lamp-oil in Northern India some time between A. D. 500 and 1100. While I was writing this paper a friend of mine asked me to write on the *history of Candles in India*. I lost no time in studying this problem and collecting evidence on it. I have great pleasure in recording below this evidence, howsoever scanty it might be.

¹ See *Bibliography* of my writings (1916-1946) published by me in 1947. The *subject-index* (pp. 38-39) of this *Bibliography* records all my papers on *Indian Culture* and *Vijñāna* (technical arts and sciences). Some more papers on these subjects have been published since the *Bibliography* was published.

² See *Journal of the Kalinga Historical Society*, Balangir (Orissa), Vol. II, No. 1, pp. 15-17.

In the article on "Candle" in the *Encyclopedia Britannica*¹ we get some historical information about Candle. I note some points from this information :—

(1) *Candle* is a rod of fatty or waxy material through the centre of which runs a fibrous wick.

(2) Modern Candles are the successors of the early *rush-lights* which consisted of the pith of rushes soaked in house-hold grease.

(3) An improvement was made later by dipping cotton threads² in melted tallow. By alternate dipping and cooling the desired thickness was obtained. These "*tallow-dips*" were one of the most ancient forms of illuminant and they continued to be a house-industry for centuries.

(4) In Paris in the 13th century A. D. there was a guild of travelling *candle-makers* who went from house to house making candles.

(5) *Bees-wax* candles have been used from early times and are mentioned by the Roman writers. For mystical reasons the Catholic Church prescribes *bees-wax* candles for Mass and other liturgical functions.

(6) *Spermaceti*, a white crystalline wax obtained from the head cavity of the sperm or "right" whale came into use in the latter half of the 18th century. Owing to its extreme brittleness spermaceti requires to be mixed with a small proportion of other material such as bees-wax.

(7) *Modern-candles* are made of paraffin wax (introduced about A. D. 1854) or stearine or mixtures of these.

As the use of candle is closely connected with the *candle-stick* the following points from the article on *candle-stick* in the *Encyclopedia Britannica* (Vol. 4, p. 740) are note-worthy :—

¹ Vide pp. 738 of Vol. 4 of 14th edition (1929).

² In ancient India the use of animal fats for feeding lamps was prohibited by the *Dharmaśāstra* texts. The practice of dipping twisted rags (forming a sort of wick or torch) in oil and then lighting them appears to have been current in mediaeval India. The term for this illuminant used in Marathi is "का(क)कडा" (Vide *Śabdakośa* by Karve and Date, Vol. II, 1933, p. 652). Series of such wicks dipped in oil or ghee and kept in a tray were lighted and waved before a temple image or house-hold gods at dawn. They were known as "काकड-आरती" (See *Śabdakośa* ibid)

(1) The history of candle-sticks deals with those of the Church. Moses was commanded to make a candle-stick for the tabernacle, of hammered gold, a talent in weight, and consisting of a base with a shaft rising out of it and six arms and with seven lamps supported on the summits of the six arms and central shaft. When Solomon built the temple he placed in it ten gold candle-sticks, five on the north and five on the south side of the holy place.

(2) After the Babylonish captivity the golden stick was again placed in the temple as it had been before in the tabernacle by Moses. On the destruction of Jerusalem by Titus it was carried with other spoils to Rome.

(3) Representations of the *seven-branched candle-stick* occur on the arch of Titus at Rome and on antiquities found in the catacombs at Rome.

(4) The *primitive form of candle-stick* was a torch made of slips of bark, vine tendrils, or wood dipped in *wax* or *tallow*, tied together and held in the hand by the lower end, such as are frequently figured on ancient painted vases. The next step was to attach to them a cup (discus) to catch the dripping wax or tallow.

(5) During *11th and 12th centuries A. D.* a certain amount of ornamentation appeared.

(6) Previous to the 17th century, *iron, latten, bronze, and copper* were used for making candle-sticks. Thenceforward silver came to be used. In more modern periods, Sheffield plate, silver plate and China became very popular.

(7) The golden age of the candle-stick lasted from the 3rd quarter of the 17th century to the end of the 18th.

(8) The history of candle-stick shows an increasing tendency towards simplicity.

The foregoing remarks on the history of *candle*¹ and *candle-stick* contain no reference to the use of candles in India.

¹ Vide p. 207 of *Dictionary of Phrase and Fable* by E. C. Brewer, London, 1912 — Brewer makes interesting remarks on *Candle* and allied terminology and its usages. I note some points from these remarks:— (1) It was an ancient custom of presenting on January 6th a candle of various colours to three kings
(continued on the following page)

Before recording my evidence about the history of candles in India I must point out that the Hindu *Dharmaśāstra* texts prohibit the use of any kind of animal fat or grease for feeding lamps and consequently any kinds of candles, in which such fat or grease was used, were not likely to have found favour with the orthodox Hindus of ancient and mediaeval India. In the *Dānakhaṇḍa* of the *Caturvargacintāmaṇi* (*Bib. Ind.*) Vol. I, Calcutta, 1873, p. 945 we find Hemādri (c. A. D. 1260) quoting an extract from the *Viṣṇudharmottara* on the topic of *dīpa-dāna* or gift of lamps to deities etc. This extract states :—

“ घृतेन दीपा दातव्यास्तैलैर्वा यदुनन्दन ।
घसामज्जादिभिर्दीपा न तु देयाः कथञ्चन ॥ ”

Only *ghee* and *oil of sesamum* were to be used for sacred lamps. No kind of fat or *marrow* of the bones and flesh of animals was to be used for these lamps. The extract further states :—

“ प्राणिजां नीलरक्तां च दीपवर्ति च वर्जयेत् ।
विशेषेण च कर्तव्या पद्मसूत्रमवा मृप ॥ ”

The wick of the lamp was to be made of lotus threads or fibres. One should avoid the use of any animal product in making this wick. ¹

(continued from the previous page)

of Cologne. (2) It was the practice of Roman Catholics to burn candles before the image of a favourite Saint, carry them in procession and place them on their altars. (3) *Selling by candle* was a kind of auction. (4) Candles used by Roman Catholics at funerals are the relic of an ancient Roman Custom. (5) Practice of holding a candle in the Catholic Church for the reader. (6) Shakespeare calls stars as “ Candles of the night ” (*Merchant of Venice*, V, 1). (7) *Candlemas Day*—feast of the purification of Virgin Mary on Feb. 2. Candle procession — Candles Symbolize Jesus Christ. (8) It was the old Roman Custom of burning candles to the goddess *Februa*, mother of Mars, to scare away evil spirits.

¹ Mitramisra (A. D. 1600–1650) in the *Lakṣaṇaprakāśa* of his *Vīramītrodaya* (Chowkhamba Sans. Series, Benarés, 1916, pp. 650–652) quotes some earlier works which describe the following lighting utensils and appliances :—

- (1) दीपपात्र (extracts from वैखानसग्रन्थ and सिद्धान्तशेखर).
- (2) दीपमाला (extract from सिद्धान्तशेखर).
- (3) दीपाधार (extract from सिद्धान्तशेखर).
- (4) दीपिका (extract from वैखानसग्रन्थ).
- (5) मीराजनपात्र (extracts from सिद्धान्तशेखर and वैखानसग्रन्थ).

There is no reference in the several extracts quoted to any kind of *Candle or Candle-stick*.

In the history of the candle recorded above from the *Encyclo-Britannica* reference is made to the use of *Bees-wax* for candle-manufacture from Roman times. I have not come across any references to the use of *bees-wax* in India among the materials used for feeding lamps in ancient and mediaeval India. As *bees-wax* is closely connected with the manufacture of candles I note below some information about it from Sanskrit sources :—

(1) The *Amarakośa* (Between A. D. 500 and 800) refers to *bees-wax* as “मधुच्छिष्टं तु सिक्थकम्” (Kāṇḍa II,) *Vaiśyavarga*, verse 108 (vide p. 224 of Poona Edition by N. G. Sardesai and H. D. Sharma). Bhānuji Dīkṣita (c. A. D. 1630) in his commentary explains the two words मधुच्छिष्ट and सिक्थक for *bees-wax* and observes “इह ‘मधुच्छिष्टस्य’ मोम इति ख्यातस्य.” It is clear from this statement that the term “मोम” for *bees-wax* was current at Benares about A. D. 1630. Bhānuji does not refer to “मोमवत्ती” or *bees-wax* candle. This term for candle in general is now current in Northern India. In the Deccan we use the term ‘मेमवत्ती’ for candle.

(2) Vāgbhaṭa I in his *Aṣṭāṅgasaṃgraha* (c. A. D. 625) refers to *bees-wax* as मधुच्छिष्ट for use in a medical preparation “खलीधनघृततेल” :—

“महातक मधुच्छिष्टज्वीर्णपिण्याकनागैः ।

घृततेलं पचेत्साम्लैस्तच्च खलीधनमुत्तमम् ॥ ३७ ॥”

(Vide p. 128 of अ. संग्रह (सूत्रस्थान Chap. 11) ed. by

R. D. Kinjavadekar, Poona, 1940)

(3) Vāgbhaṭa II (c. A. D. 8th or 9th century) refers to *bees-wax* in the following extracts :—

Aṣṭāṅgahṛdaya (*Cikitsitasthāna*, chapter 3.—कासचिकित्सित) —
“लाक्षां सर्पिमधुच्छिष्टं जीवनीयं गणं सिताम्” (verse 75)

and *Cikitsitasthāna*, chap. 19 (कुष्ठचिकित्सित) verse 78—

— “वेयः समधुच्छिष्टो विपादिका तेन नश्यति ह्यक्ता ।”

and verse 84—

— “सिद्धं सिक्थकसिद्धरपुरतःस्थकं तार्क्ष्यजैः ।”

4) The medical glossary *Dhanvantarinighantū* (earlier than *Amara*) records the following synonyms about bees-wax¹ (सिक्थक) :—

“सिक्थकं मधुकं सिक्थं मधुच्छिष्टं मधुस्थितम् ।
मधुशेषं मदनकं मधुजं माक्षिकाश्रयम् ॥”

(See p. 608 of *अष्टांगहृदयकोष* by K. M. Vaidya, Trichur, 1936)

(5) Narahari (c. A. D. 1450) in his medical glossary *Rāja-nighantū* (Ānandāśrama Sans. Series, Poona, 1896, p. 118) records the properties and synonyms of bees-wax :—

गुणाः— “सिक्थकं सिग्धमधुरं शूतघ्नं भग्नसंघिकृतम् ।
हन्ति वीसर्पकण्डूवादिन्त्रणरोपणमुत्तमम् ॥ १२० ॥
भोजनं पिच्छलं स्वादु कुष्ठवाताग्निजिह्वुम् ।
राजनिघण्टौ खवर्णादिस्त्रयोदशो वर्गः—
सिक्थकं मधुकं सिक्थं मधुजं मधुसंभवम् ।
मदनकं मधुच्छिष्टं मदनं माक्षिकामलम् ॥ १७३ ॥
क्षौद्रयं पीतरागं च सिग्धं माक्षिकजं तथा ।
क्षौद्रजं मधुशेषं च द्रावकं माक्षिकाश्रयम् ॥ १७४ ॥
मधुषितं च संप्रोक्तं मधुस्थं चोन्विशतिः ॥”

Page 481—Narahari mentions the vernacular term मेण for bees-wax in the following verse :—

“मेणे कलिङ्गे शोकार्थे शल्ये काके च धूर्तके ।
मदनश्च समाख्यातः षडमी समुदाहृतः ॥ १२ ॥”

¹ I may note here the references to bees-wax in the *Geographical Account of Countries round the Bay of Bengal* (A. D. 1669-1679) by Thomas Bowrey (Hakluyt Society, Cambridge, 1905) :—

Page 290—foot note 8 — “Bees-wax” mentioned as an article of trade of the Mallays (of Achin) with Pegu etc. (see p. 35 of Lockyer's *Trade in India*).

Pages 56-57 — Bowrey mentions bees-wax as king's commodity in his account of Choromandel. In foot-note 2 the editor quotes an extract dated 8th Sept. 1676 from the *Diary of Streyneham Master*, p. 57, on his journey from Balasor to Hugli, which reads “Ganges, on the east side of which most part of the great quantity of bees-wax is made, which is the king's commodity.”

P. 132 — Bowrey mentions “bees-wax” as a product of Bengal produced in plenty.

P. 225 — Bowrey refers to “bees-wax” as king's commodity in his account of Patna (Bihar).

P. 134 — foot-note 1 — *Tavernier*, Vol. II, p. 141 — reference to wax as a product of Bengal.

(6) The *Carakasāhita* (*Cikitsāsthāna* Chap. 7, verse 121 — p. 456 of N. S. Press Edition, 1941) refers to *bees-wax* in its treatment of leprosy (कुष्ठ):—

“देयः स मधूच्छिष्टो विपादिका तेन शाश्यतेऽभ्यक्ता ॥”

(7) Dr. G. P. Majumdar in his remarks of *Toilet* (p. 84 of *Some Aspects of Indian Civilization*, Calcutta, 1938) states that according to Vinaya texts the Buddhist *Bhikkus* are “forbidden to smooth the hair with a comb or with a shampooing instrument with pomade, hair oil or *bees-wax*.”

The foregoing few references are sufficient to establish the antiquity of *bees-wax* in India for at least 2000 years, if not more. These references, however, are not useful to us in our inquiry about the use of *bees-wax* for the manufacture of candles in India.

The Marathi Dictionary *Śabdakośa* (by Date and Karve) makes the following entries about candle or मेणवत्ती:—

Vol. IV (1938), p. 2527—

मेण - wax (मधूच्छिष्ट) *Persian* मोम्

मेणवत्ती - Bees-wax candle. (*Persian* मोम्, मूस् + वत्ती)

मेणवात - मेणवत्ती

Page 2543— मोम्बत्ती - मेणवत्ती

Usage— “झाडें मोम्बत्याचीं लावणें तीं पुस्त लावार्चीं”

— पत्रें यादी etc. २८६ (काव्येतिहाससंग्रह)

(This usage of the word मोम्बत्ती is later than A. D. 1700).

I have already recorded the reference to मेण in the glossary by Narahari (c. A. D. 1450) viz. *Rājanighaṇṭu*, in which the Sanskrit word मदन is equated with मेण (मेणे ... मदनश्च समाख्यातः). This reference proves that the term मेण was current c. A. D. 1450. This conclusion is corroborated by the references to “मेण राठी” and “मेण तेल” on folio 33 of a Ms on cosmetics and perfumery called the *Gandhavāda* with a Marathi commentary available in B. O. R. Institute Collection (Raddi collection). According to my evidence this work was composed between c. A. D. 1350 and 1550. This use of मेण or *bees-wax* in cosmetics is in harmony with the reference to *bees-wax* in the *Vinaya* texts which, however, prohibit its use for toilet purposes by the *Bhikkus* as pointed out by Dr. G. P. Majumdar and noted by me already in this paper.

The Maratha King Shāhu of Satara, the grandson of Shivaji the Great, was brought up in Mogul captivity in his boyhood. He was, therefore, fond of certain articles of luxury current at the Mogul court in the latter half of the 17th century and when he began to rule the Maratha country with his headquarters at Satara he procured these articles for his use as will be seen from the following evidence :—

In the *Peshwa Daftar Selections* ed. by Rao Bahadur G. S. Sardesai we get the following documents proving the use of *wax-candles* (मोमबत्ती) and *rose-water* (गुलाब) by King Shahu (A. D. 1682-1749) :—

P. D. Selection No. 8 — Letter No. 51 dated 13th April 1723. This letter is written by Kanhoji Angre Sarkhel to King Shahu, forwarding about 750 *candles* ("मोमबत्त्या") weighing $7\frac{1}{4}$ *maunds* and 5 *seers* together with about 20 *rose-water* bottles ("गुलाब सिस्ते सुमार २०") in response to Shahu's letter to the writer, stating that 1000 candles were required by Shahu in connection with the marriage of Rājasbai ("आज्ञा केले कीं चिरंजीव राजसबाईच्या लग्नास मोमबत्तियाचें प्रयोजन आहे तरी येक हजार मोमबत्त्या पाठऊन देणें म्हणोन आज्ञा, त्यावरून मोमबत्त्या व गुलाबसिसे पाठविले आहेत").

Rao Br. Sardesai adds the following note to this letter :—

"Raja Shahu constantly ordered *candles* and other foreign articles from the Angres who probably procured them from the British."

P. D. S. No. 8 — Letter No. 52 dated 3-8-1715 (?) is a Memo. of foreign articles ordered by King Shahu from Kanhoji Angre. This list includes 400 *candles* ("४०० मोमबत्ती"), 100 *rose-water* bottles ("१०० गुलाब सिसे") together with elephant tusks, knives, cloths, tobacco (बगदादी and सुरती), musk, gun-powder, swords etc.

The foregoing evidence conclusively proves the use of *candles* in the Maratha country¹ later than A. D. 1700, though this use

¹ The increasing use of candles in the Maratha Country during the regime of the Peshwas is vouched by the following references in *Peshwa Daftar Selection No. 32* (Private Life of the later Peshwas) ed. by Rao Bahadur G. S. Sardesai, 1933 :—

Letter No. 30 of 23-8-1815 — "१००० रोशनईकडे मेणबत्त्या खरेदी बा॥"

(Rs. 1000 spent for the purchase of candles for *Ganapati Festival* in A. D. 1815).

Letter No. 33 of 30-8-1771 — "मोमबत्त्या सुमार १०० पाठविल्या पावल्या."

(These candles were received for the Jewellery Department of the Peshwa).

(continued on the following page)

20 [Annals, B. O. R. I.]

was confined to royalties. Rao Br. Sardesai states that Shahu ordered *candles, rose-water* etc. from Kanhoji Angre, who probably purchased them from the British. If this statement is correct we must presume that *candles* were not manufactured in India but that they were an article of foreign import in India in the early part of the 18th century.

Let us now record the use of candles in India in the 17th century. In this connection the evidence of the glossary called the *Rājavyavahārakośa* composed by Raghunātha Paṇḍita about A. D. 1676 by order of Shivaji the great (died A. D. 1680) is very helpful. In the 1st section of this glossary called the *Rājavarga* (p. 3 of the Poona Edition, 1880) the author records some terminology about lighting appliances etc. in the following extract :—

“ ... दीपधरास्तु ते ॥ २२ ॥

मशाले स्युः हिलाली तु प्रदीपधर उच्यते ।

दीपिकां द्विवटी प्रोक्ता हिलालस्तु प्रदीपकः ॥ २३ ॥ ”

— “ दीपशाखा तु समयी फिलसोजः सत्सम्प्रदीपकः ॥ २७ ॥

दीपञ्चिराम् सीखचिराम् तु ज्ञेयो रोहणदीपकः ।

स्यादन्तरालदीपस्तु कंदील^१ इति नामतः ॥ २८ ॥

(continued from the previous page)

Letter No. 228 of 18-4-1815— This is a contract (मख्ता) for supplying lights in the Peshwa's palaces at Poona undertaken by one Jivaji Krishnaji Bhutkar. It refers to दीप, रुई, कापूस, तेल. No reference to candles is found in this contract for 12 months. Evidently the lamps at the palaces were oil-lamps normally and candles were used on special occasions.

^१ Vide p. 73 of *Portuguese Vocables* by Dalgado, G. O. Series Baroda, 1936— “ ? Candil (in the old acceptation of “ a lamp,” now obsolete). Guj. *Kandil*, a glass lamp. — Hindi, Hindust. *qandil* — Kan. *Kandil* — Mal. *Kandil*, — Ach. *Khandel*. — Jap. *Kantera*, a hand lamp. ”

In all probability the word is imported directly from the Arabic *qandil*. The origin of the Japanese term is doubtful; perhaps it is from the English *Candle*, notwithstanding the difference in meaning. Goncalves Viana believes that it is from the Spanish *Candela*, “ a candle. ”

Peshwa Daftar Selection No. 82 (Private Life of later Peshwas) Letter No. 86 refers to a फानूस (lantern) fitted with mirrors (आरसे कल्हईदार) required by the Peshwa. A special carpenter was asked to prepare this lantern. The *Śabdakośa* by Date and Karve, p. 2173, records the words फानूस, फानूस, (Arabic फानूस) = कंदील. — Usages:— “ फानूस लावावे त्यांत मेणबत्या लावाव्या (पत्रे, यादी etc. २८५) and प्रभाकर लावण्या (९२) “ फानूसें झाडे फिरंगाणी काम बिलोरी । लाऊन मेणबत्या भंवताल्या हारोहारी । ”],

उत्सोजः स्यादूपतर ऊद्दानी धूपपात्रकम् ।

मेणकोशस्तु मोम्दानी मोम्बत्ती मेणवर्तिका ॥ २९ ॥”

In the above extract the following words and their meanings recorded by Raghunātha Paṇḍita are useful for our present inquiry :—

- (1) मोम्दानी = मेणकोश (candle-stick)
- (2) मोम्बत्ती = मेणवर्तिका (candle or bees-wax candle)

I am not aware of the existence of the words मेणकोश and मेणवर्तिका in any lexicons Sanskrit or Prakrit so far known. It appears that Raghunātha has coined these words to explain the foreign¹ terms मोम्दानी and मोम्बत्ती then current in the Maratha country like many other terms which constitute the *Rājavyavahārakośa*, a glossary prepared with the object of clarifying the meanings of these terms for the benefit of Shivaji's courtiers and other officers in his kingdom. I have already pointed out that Bhānuji Dīkṣita (c. A. D. 1630) living at Benares uses the Persian term मोम् (bees-wax) in explaining Amara's two terms “मधुच्छिष्ट” and “सिक्थक” for *bees-wax*. Bhānuji nowhere refers to मोम्बत्ती (candle) as such, though candles were used in India at this time as will be seen from the evidence recorded below.

John Fryer in his *Travels* (A. D. 1672-1681) published by Hakluyt Society, London, 1912 refers to *wax for Tapers* in his *Description of Goa* as follows :—

Vol. II, Page 28 — “The finest *Manchet* (= wheaten bread) it may be in the world is made here and the purest *Virgins Wax for Tapers*.”

The Editor of the above *Travels* makes the following remarks on the word *Tapers* in the above extract :—

¹ In his फार्सी-मराठी कोश (Poona, 1925, p. 208) Prof. M. T. Patwardhan makes the following entries about मोम् (bees-wax) and allied terms :—

मोम् जामा (पु.) मेण-काण्ड. “ खर्च किरकोळ खाया व मोम्-जामा यांस; व हुण्डणाबळ अधिक लागली ” (see महेश्वर दरबारची बातमीपत्रे ११११५)

मोम्-झील मेण-हृदयी—“ प्राणत्यागच कला तर नाहक दुर्निमित्त होईल यास्तव मोम्झीलही जाली (see म. द. बातमीपत्रे ११११५)

मोम्-वत्ती (स्त्री.) मेणवत्ती—“ झाडे मोम्बत्यांचीं लावणें तीं पुस्त लावावी ” (see साने—“ पत्रे यादी बगर ” २८६).

"Bee farming for the collection of honey and wax, most of which is sent to Goa and made into candles for Church altars is still an industry in Kanaru (*Bombay Gaz.* XV, Pt. 1, 104 ff.).

Page 11 — Description of a Church at Goa (college of Dominicans) — "In the Sacristan were massy silver candle-sticks and other vessels very Rich."

Page 251 — *Travels into Persia* —

"Nor can we forget another sort of Black Traders, burning light at Noon-day, which are the Necromancers, whose shops are bestuck with candles, lighted in every hole....."

Tavernier in his *Travels in India* (Vol. II, London, 1889) makes the following references to candles:—

Page 8 — Speaking of large quantities of spun cotton, exported to Europe by the English and Dutch companies *Tavernier* states:—

"These are the kinds which are used to make the wicks of candles, and stockings and to mingle with the web of silken stuffs.

Page 292 — speaking of a pagoda in Siam *Tavernier* states:—

"In the middle there is, as it were, a great chapel all gilded within, where a lamp and three wax-candles are kept alight in front of the altar, which is covered with idols..."

Page 336 — *M. Constant*, commander at Gombroon (Bandar Abbas) gave a dinner to several Franks. In the description of this dinner *Tavernier* refers to lamps, which were "saucers full of oil attached to the walls of the house and at a distance of about one foot from each other". Instead of these lamps *M. Constant* ordered "white wax-candles to be placed throughout, and both within and without the house there was light every where". All the merchants both Christians and Muhammadans were surprised at it. At this *Tavernier* remarked:—"this wax does not cost so much to the company as it does to private persons, because all the Dutch vessels which come from Mocha (Mocca) carry much of it as it is very cheap there."

Page 18 — Speaking of Cinnamon from Ceylon *Tavernier* states:—

"The Portuguese used to gather quantities of it (Cinnamon) which they placed in Chaldrons with water together with the

small points of the ends of the branches and they boiled the whole till the water was evaporated when cooled, the upper portion of what remained was like a *paste of white wax* and at the bottom of the Chaldron there was *Camphor*. Of this paste they made *tapers*, which they used in the Churches during the service at the annual festivals, and as soon as the *tapers* were lighted all the Church was perfumed with an odour of cinnamon. Formerly the Portuguese procured cinnamon from the countries belonging to the *Rajas* in the neighbourhood of *Cochin*. ”

Page 413 — Giving an account of his arrival in Holland with the Dutch fleet, Tavernier states :—

“ As soon as we had sighted the coasts of Holland, all the soldiers of our fleet.....fixed a quantity of *small wax-tapers* about the poop and bow of the vessel.....On our vessel alone there were more than 1700 of these *wax-tapers*, both large and small. The sailors had kept them since they were at *Manillas*, from whence they had brought a large quantity, as also from *Point de Galle* in the island of *Ceylon*.....as *wax* was cheap throughout *India* and is easily bleached, every religious house always has a large supply of *wax-tapers* on account of the festivals, when numbers are lighted before the *grand altar* and in all the *Chapels*. Thus the least of the Dutch Sailors had *thirty* or *forty* of these *tapers* for his share and some of them had some as thick as the thigh. ”

Among the references to the use of *wax-candles* by Tavernier we note with interest their use before idols in a pagoda in Siam.

Pietro Della Valle in his *Travels in India* (Hak. Society, London, 1892) Vol. II, makes the following references to *candles* :—

Letter No. V dated 22nd November 1623 from *Ikkeri* (to the South-east of Honawar in the Shimoga District of Mysore) :—

Page 235— Description of a Shiva Temple

— “ The idol was called *Virenà Deurù* ... at the upper end in a dark place with candles before him.

Page 237 — “ In the middle of the temple ... a darker enclosure ... wherein stood ... a little stockade or *Pallisade* ... to hang *Lamps* and *Tapers* upon at more solemn days and hours. ”

Page 238— “ *Tapers* being lighted, particularly at the stockade. ”

— Idol of *Virenà* taken in a procession.

— Two Ministers " with lighted *Tapers* marched first, followed, by the Idol in his canopy.

Page 239 — One of the Priests or Ministers " began to salute the Idol a far off with a dim *Taper* in his hand making a great circle ... several times."

— "*Palisade of lights* ... through which it is not lawful to pass."

Page 240 — The priest "took a *wax-candle* and therewith described within the *Palanchino* or carriage before the Idol many circles with lines at the end; and putting out the *candle* took the Idol out of the *Palanchino* and carrying it through the railed stockade in the middle of the *Torches*, placed it on its Tribunal at the Upper End where it usually stands."

— "*Candles* being put out, the ceremonies ended and the people returned to their Houses" (The Editor observes in footnote 2 on p. 240:—

"*Wax-candles* are certainly not common in India even in the present days, among natives, and were probably used only in temples.")

Page 271 — "The night following there was a great solemnity in all the Temples by *lighting of candles*."

Page 279 — "*Tapers* were lighted up in all the Temples of *Ikkeri*."

On p. 206 Della Valle mentions the *Divāli* ("the *Davāli* or feast of the Indian Gentiles") which was celebrated on *24th October 1623*. On *page 283* he describes in picturesque detail a *festival of illumination* on *21st November 1623* which was a "*New Moon*" day and at which the King of *Ikkeri*, Venkatappa Naik was present. The description of this illumination reads like the description of *Divāli*. I, therefore, reproduce it below:—

Page 283 — "*November* the one and twentieth. This night an infinite number of *Torches* and *candles* were lighted, not only in all the Temples, but also in all the Streets, Houses, and Shops of *Ikkeri*, which made a kind of splendour over all the city. In each of the Temples was its Idol, which in some was a serpent; and they had adorned the outward Porches, not only with lights

but also with certain *contrivances of paper* on which were painted men on Horseback, Elephants, people fighting and other old figures; behind which papers *lights* were placed in certain little Arches like those which we make in our sepulchres; these with other gay Ornaments of silk hung round about made a sufficiently pretty show. In the great Temple not onely the inside, in the middle whereof is a very high and slender cupola (which appears without too) but also all the outer walls and all those round about the Piazza which lies before it, as also the Houses on the adjacent sides, were all full of *lights*. The concourse of people of all sorts and degrees, both *Men and Women*, was very great; and they appeared to go about *visiting all the Temples*.

When it was very late the King came to the great Temple accompanied only by his two grandsons ... in a *Palanchino*, his two nephews on Horse-back ... at a great distance, with some number of Souldiers and Servants on Foot ... The King stayed in the Temple about an hour, being entertained with Musick, Dancing and other things which I could not see because I was without."

We note with interest the *contrivances of paper with lights behind them*, which adorned the outward porches at this festival of A. D. 1623 on the *New-Moon* day. They can be compared with hanging paper-lanterns which adorn the fronts of houses in modern *Divāli* celebrations.

Letter No. VII dated 31st January 1624 from Goa—

Page 348— Description of a Temple near Mangalore

— Description of a Pillar for light near the Temple :—

" Where the stairs begin stands a high, strait and round *brazen pillar*¹ ty'd about in several places with little fillets; 'tis about 60 Palms (each Palm = about 9 inches) and one and a half thick from the bottom to the top, with little diminution. On this Pillar are placed about *seventeen round brazen wheels*² made with many spokes round about like stars : they are to support the *lights*

¹ The Editor States :— " This pillar is not mentioned in modern descriptions of the Temple. "

² What was the exact size of these wheels? Were they used as pulle for hoisting up hanging lamps?

in great Festivals and are distant about three Palms one from another. The top terminates in a great *brazen candle-stick* of five branches of which the middlemost is highest, the other four of equal height. The foot of the Pillar is square and hath an Idol engraven on each side : the whole structure is or at least seems to be, all of one piece. "

Page 348 — "The walls of a less Inclosure (wherein according to their custom, the Temple stands) are also surrounded on the outside with *eleven wooden rails* upto the top, distant one above the other little more than an *Architectural Palm*; ¹ these also serve to bear *Lights* on Festival occasions; which must needs make a brave show, the Temple thereby appearing as if it were all on fire). "

It is clear from the evidence recorded so far that *wax-candles* were used in the 17th century not only by the Christians of Goa in their Churches but also by the Hindus in their temples as clearly stated by Pietro Della Valle (A. D. 1623-24) in his description of Hindu Temples. This use of *wax-candles* in Hindu temples in A. D. 1623 and in a pagoda in Siam referred to by Tavernier (c. A. D. 1670) is further corroborated by Duarte Barbosa (A. D. 1518) who in his *Travels* (Hak. Society, London, 1918) Vol. I, p. 115, expressly mentions the use of candles side by side with that of oil-lamps as will be seen from the following extract:—

Page 115 — Speaking of the *Brahmins of Gujarat* Barbosa observes:—

".....they celebrate great ceremonies in honour of these *idols*, entertaining them with great *store of candles* and oil-lamps and with bells after our fashion). "

¹ The height of the brazen Pillar was 60 Palms. The Editor remarks:— "Probably the Italian measure or *Palmo* is here referred to, equal to about nine inches. The measure of a "*Palm*" may also be understood as equal to about 8½ inches (length of a hand) or 3 inches (breadth of a hand). If *Palms* = 3 inches the height of the Pillar of 60 *Palms* = 180 inches = 15 feet. If *Palm* = 9 inches the Pillar of 60 *Palms* = 540 inches = 45 feet—Scholars interested in the history of Indian architecture will be better able to visualize this brazen Pillar than myself.

In the *Ain-i-Akbari* (A. D. 1590) the *Regulations*¹ for the *Illuminations* at Akbar's court are recorded in detail. They refer

¹ These *Regulations for the Illuminations* (Vide pp. 42-43 of Francis Gladwin's Eng. Trans. of *Ain-i-Akbari*, Vol. I, Calcutta, 1897) may be reproduced here as they are very useful for reconstructing the history of lamps and lighting in Mediaeval India:—

Regulations for the Illuminations— This is a spark of celestial fire.

At noon when the Sun enters the 14th degree of the sign *Aries*, they place in the Sun's rays a kind of shining onyx, called in the Hindustani language *Soorej Kerant* (सूर्यकरन्त) and put to it a piece of cotton which from heat of the stone catches fire. And this celestial fire is committed to the care of proper persons; and the lamp-lighters, link-men and cooks make use thereof for their respective offices: and when the year expires, they catch new fire. The vessel this fire is preserved in, is called *Agangar* or the fire-pot. There is also a shining white stone called *Chunder Kerant* (चन्द्रकरन्त), which, upon being exposed to the moon's beams, drips water.

Every afternoon, at one Ghurry before sun-set his Majesty, if on horse-back alights; or if sleeping, he is awakened. And when the Sun sets, the attendants light up *twelve camphor candles* in *twelve candle-sticks of gold and silver* and bring them into the presence, when a singer of sweet melody, taking up one of the candle-sticks, sings a variety of delightful airs and concludes with imploring blessings on his Majesty.

It is impossible to describe the beauty and various forms of these *candle-sticks*: Some of them weigh *forty pounds* and upwards and are carved with a variety of figures. Some are *singl**, others of *two branches* and others of more.

They cast *camphor candles three yards* long, and *some larger*, and they are *ornamented with flowers*. The palace is moreover illuminated within side and without with *flambeaux fixed upon poles with iron prongs*. The *first second and third* nights of the moon when there is but little moonlight prongs are lighted with eight flambeaux. From the *fourth* to the *tenth* they decrease one in number every night, so that on the *tenth* night, when the moon shines very bright, one flambeaux is sufficient. And they continue in this state till the *fifteenth* and increase one every day from the *sixteenth* to the *nineteenth*. On the *twentieth* they continue the same, and on the *twenty first* and *twenty second* increase one daily; the *twenty third* is the same as the *twenty second* and from the *twenty fourth* to *thirtieth* night of the moon, eight prongs are lighted up. For each link are allowed *one seer and half of oil*, and *half a seer of rags*, more or less according to the size. In some places they burn lamps with *grease*; but in *palace nothing is used but oil*.

In order to render the royal camp conspicuous to those who come from far, his Majesty has caused to be erected in the front of the *Dowlet Khanah*, a pole upwards of *forty yards high* which is supported by *sixteen ropes* and from the top of the pole is suspended a *large lantern* which they call *Akass deeah* (आकाश दिवा or आकाशदीप).

These offices are performed by many of the *Munsubdars*, *Ahdeens*, and other military men. The pay of a footsoldier never exceeds *two thousand four hundred*, and is never less than *80 Dams*. "

§1 [Annals, B. O. R. I.]

to the use of *camphor candles* at the Mughal Court in different kinds of *candle-sticks*. Camphor candles, three yards long and even more must have been a grand sight to see for Akbar's courtiers. As compared with the camphor candles the wax-candles used in Hindu temples (about A. D. 1518) in Gujarat and in Kanara (A. D. 1623) dwindle into insignificance. Wax-candles must have been in use in Akbar's time in the household of common men, both Hindu and Muslim, but they don't appear to have been in favour at the imperial Court which was devoted to the pursuit of the sublime and the beautiful, irrespective of the cost involved in such a pursuit.

Though *Barbosa* refers to the use of *wax-candles* in Hindu Temples in A. D. 1518 in Gujarat Babur in his *Memoirs* deplors the *absence of candles and candle-sticks* in Hindustan in his diary for A. D. 1525-1526. Perhaps he did not notice them in Central and Northern India in the territories conquered by him. Are we, therefore, to suppose that the use of candles was unknown in India before A. D. 1498, the date of Portuguese advent? In the following extract from *Baburnāmā* (Trans. by A. S. Beveridge, Vol. II, London, 1922, p. 518) we get a list of the defects of Hindustan, among which the *absence of candles and candle-sticks* is emphatically deplored :—

"Hindustan is a country of few charms. Its people have no good looks; of social intercourse, paying and receiving visits there is none.....no hot-baths, no colleges, *no candles, torches, or candle-sticks*.

In place of candle and torch they have a great dirty gang they call *lamp-men (diwāī)*.....This is the Hindustan substitute for lamps and candle-sticks....."

We must now try to trace references to the use of candles in India by Muslims prior to A. D. 1500 and later than the Muslim conquest of Sind in A. D. 712.

In concluding this paper I must not fail to take notice of the so-called *candle-stick*¹ discovered in Mohenjo Daro excavations,

¹ I have to thank my friend Dr. A. D. Pusalker, Assistant Director, Bhāratīya Vidyā Bhavan, Bombay, for drawing my attention to this candlestick and Mr. Mackay's remarks on it.

about which Ernest Mackay remarks as follows on p. 137 of his *Indus Civilization* (London, 1935) :—

“ A pottery candlestick (Pl. O, 5) provides an answer to the question how the houses were lighted ; no dish or other receptacle has yet been found which, by definite marks of burning at the edge, can be identified as a lamp. It seems certain that some vegetable oil must have been used for lamps in the Indus valley, since lamps were undoubtedly known in neighbouring countries at that time ; in any case, it is extremely interesting to discover that candles were also in use at such an early date. ”

The candlestick¹ referred to above is described in detail by Mackay on p. 414 of Vol. I of *Further Excavations at Mohenjo-Daro*, 1938, New Delhi. If candlesticks were used in India as early as c. B. C. 3000 during the days of the Indus valley civilization one wonders why their use should not be referred to in the extant Indian literature from the *Rgveda* onwards upto the end of the 15th century A. D. Though the bees-wax was known in India from very early times and was used for medical and other purposes such as the preparation of wax-moulds for casting metal images, no trace of bees-wax used for the manufacture of candles has yet been found so far as my knowledge goes. This view of mine gets some confirmation from the statement of Emperor Baber in his *Memoirs* for A. D. 1525-26 deploring the absence of candles and candlesticks in *Hindustan* by which he evidently means Northern Indian territory conquered by him. The use of candles in Hindu temples in Gujarat referred to by Barbosa in A. D. 1518 only shows that they were getting current in India towards the end of the 15th century

¹ In reply to my inquiry about candles in India in pre-Mughal times Dr. H. Goetz, Curator, Baroda Museum, wrote on 2-10-1947 :—

“ As to candles I should regard Mackay's identification of a candle-stick from Mohenjo Daro very improbable. In India I cannot trace candles before Mughal invasion. Thus the candle might have been introduced from China. But I do not feel sure, as candles played a great role in Christian ritual since olden times. However, I do not know since when exactly. The oldest European candle-sticks which I know are of the 11th century. On ground of quite a number of considerations, which I cannot specify here, I should be inclined to search the origin of the wax-candle in late T'ang China. ”

perhaps as a result of Portuguese contact. This is the only conclusion I can draw from the evidence so far traced and recorded.

Before closing this paper I record the following reference to "waxen tapers" used in a Hindu Chapel (before the goddess *Kālī*) at Calicut between A. D. 1502 and 1508 :—

In the *Travels* of the Italian traveller *Varthema* (Argonaut Press, London, 1928) chap. VII is devoted to *Calicut* (pp. 55-70). While describing the King of Calicut and his Chapel *Varthema* refers to the sacrifice of a cock before the goddess (*Sathanas* (= *Kālī*) in the Chapel and observes :—

Page 56 — "They have a certain small table.....extremely well adorned with roses, flowers and other ornaments. Upon this table they have the blood of a cock.....they have a silver knife with which they have killed the cock, and which they tinge with the blood.....and finally all that blood is burnt, the waxen tapers being kept lighted during the whole time."

The above reference to "waxen tapers" by *Varthema* is the earliest so far traced by me and hence important for my inquiry. The references to the use of wax-candles by *Varthema*, *Barbosa* and *Pietro Della Valle* between A. D. 1502 and 1623 illustrate the use of candles along the coast line of India.

Chronology	Reference
c. B. C. 3000	—Supposed <i>candle-stick</i> found at Mohenjo-Daro. — <i>Bees-wax</i> candles mentioned by <i>Roman</i> writers. — <i>candles</i> and <i>candle-sticks</i> mentioned in Holy Bible.
Between A. D. 500 and 1100	— <i>Turuṣka taila</i> for feeding lamps mentioned in <i>आर्यभट्टजीयलक्ष्य</i> and <i>Pārusika taila</i> (Persian oil) mentioned by Bilhana in the <i>विक्रमादित्यचरित</i>
A. D. 1000-1100	—Use of ornamental candle-sticks in Europe.
A. D. 1200-1300	—Guild of travelling <i>candle-makers</i> in <i>Paris</i> .
A. D. 1502-1508	— <i>Varthema</i> refers to "waxen tapers" used in a Hindu Chapel at Calicut.
A. D. 1518	— <i>Barbosa</i> refers to the use of <i>candles</i> and oil-lamps by the Brahmins of Gujarat before idols during ceremonies in their honour.
A. D. 1525	— <i>Baber</i> deplores the <i>absence of candles</i> and <i>candle-sticks</i> in Hindusthan.
A. D. 1590	— <i>Ain-i-Akbari</i> mentions <i>camphor-candles</i> (three yards long) and gold and silver <i>candlesticks</i> at Akbar's court.
A. D. 1623 (November)	— <i>Pietro Della Valle</i> refers to the use of " <i>wax-candles</i> " in a Hindu temple at Ikkeri (in the Shimoga District of Mysore).
A. D. 1672-1681	— <i>John Fryer</i> in his description of <i>Goa</i> mentions " <i>Wax for tapers</i> " and " <i>massy silver-candle-sticks</i> used in Churches at <i>Goa</i> . — <i>Tavernier</i> refers to " <i>wax-candles</i> " before an altar in a <i>pagoda</i> at <i>Siam</i> . — <i>Tavernier</i> mentions <i>wax-tapers</i> used by <i>Dutch Sailors</i> .
c. A. D. 1676	—The <i>Rājavyavahāraśāstra</i> mentions मोसदारी (candlestick) and मोसदारी (candle).
c. A. D. 1675- A. D. 1800	— <i>Golden age</i> of the candlestick in Europe.
A. D. 1723	—750 <i>candles</i> and 20 <i>Rose-water</i> bottles procured from the English by King Shahu of Satara.
A. D. 1854	—Introduction of modern candles of <i>paraffin wax</i> etc.